UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,465	04/17/2001	Thomas Senn	97634.00108	5999

72535 7590 01/05/2009

MCCARTER & ENGLISH , LLP STAMFORD OFFICE
FINANCIAL CENTRE , SUITE 304A
695 EAST MAIN STREET
STAMFORD, CT 06901-2138

EXAMINER	
HARRISON, CHANTE E	

ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
01/05/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS SENN, THORSTEN BRAUN,
SIMON GRETER, and FRANCIS LAMY

Appeal 2008-3309
Application 09/835,465
Technology Center 2600

Decided: January 5, 2009

Before ROBERT E. NAPPI, JOHN A. JEFFERY, and KARL D. EASTHOM, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-6, 8-26, and 28-44. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants invented a process for producing an electronic color information data file which can include all possible information data assigned to at least one color sample as well as information pertaining to identifying, characterizing, and supplementing the color sample(s). The information data are stored as data objects in the data information file in an open and expandable hierarchically organized object structure. This data file can be transferred to a receiver over a transmission medium for display in a visual form.[1] Claim 1 is illustrative:

> 1. Process for producing an electronic color information file in a text format for color communication, wherein the electronic color information file has at least one data set describing the color impression of at least one color sample, comprising the steps of:
>
> making available the at least one data set in a processor;
>
> coding the at least one data set describing the color impression into a pure text format and
>
> storing the at least one data set describing the color impression in the color information file in a pure text format, such that all the information data associated with the at least one color sample and identifying, characterizing, and supplementing the at least one color sample are stored as information data in a pure text format containing data objects in an open, expandable, hierarchically organized object structure in the color information file.

The Examiner relies on the following prior art references to show unpatentability:

Holt	US 5,528,261	Jun. 18, 1996
Back	US 6,515,690 B1	Feb. 4, 2003 (filed Feb. 25, 2000)

[1] *See generally* Spec. 1; Abstract.

1. The Examiner rejected claims 1-6, 8-26, 28-38, 40, 41, 43, and 44 under 35 U.S.C. § 103(a) as unpatentable over Holt (Ans. 3; Final Rej. 2-9).[2]
2. The Examiner rejected claims 39 and 42 under 35 U.S.C. § 103(a) as unpatentable over Holt and Back (Ans. 3; Final Rej. 10).

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs and the Answer[3] for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

THE OBVIOUSNESS REJECTION OVER HOLT

Regarding representative claim 1,[4] the Examiner finds that Holt teaches all of the claimed subject matter except for coding and storing the

---

[2] Although the Examiner's rejection includes cancelled claims 7 and 27, we deem this error harmless. We further note that the Examiner's Answer does not expressly state the Examiner's grounds of rejection, but instead refers us to a previous office action (Ans. 3). Such incorporations by reference, however, are improper under current practice. *See* MPEP § 1207.02 ("An examiner's answer should not refer, either directly or indirectly, to any prior Office action without fully restating the point relied on in the answer."). We nevertheless deem this error harmless.

[3] Throughout this opinion, we refer to (1) the Appeal Brief filed May 15, 2006; (2) the Examiner's Answer mailed July 26, 2006; and (3) the Reply Brief filed Oct. 2, 2006.

[4] Appellants argue claims 1-6, 8-26, 28-38, 40, 41, 43, and 44 together as a group. *See* App. Br. 3-13. Accordingly, we select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

data set in a pure text format. The Examiner, however, concludes that this feature would have been obvious in light of Holt's object-oriented programming design (Final Rej. 2-3).

Appellants argue that Holt is inapposite and not analogous to the claimed invention since Holt pertains to providing a translation interface between incompatible color input and output devices. This process, Appellants contend, differs from the claimed invention which deals with coding and storing raw data in an information file for further communication (App. Br. 5-7).

Appellants further argue that Holt does not teach or suggest coding a data set into a text format, where the data set describes the color impression of a color sample. According to Appellants, Holt's data constructs, such as color gamut, color profile, and tonal reproduction curves, are distinguished from raw color data in the reference and, in any event, these constructs are unrelated to a color impression of a color sample as claimed (App. Br. 9).

Appellants add that Holt also fails to teach or suggest storing such a data set in a color information file in a text format such that all information data associated with the color sample are stored as information data in a pure text format containing data objects in open, expandable, hierarchically organized object structure as claimed (App. Br. 9-10).

The Examiner responds that Holt is analogous art in light of the disclosed architecture's storage and coding functionality, and that the reference suggests providing a pure text format in view of its object-oriented programming design. The Examiner cites an additional reference to Linux to evidence such a suggestion (Ans. 5-6). The Examiner also contends that Holt teaches the disputed limitations in view of its architecture that includes

a data set of color profiles and tonal reproduction curves. The Examiner adds that Holt's programming language includes various classes that are labelled and identified in textual format, and that stored data is likewise represented in a textual format (Ans. 7-8).

The issue before us, then, is as follows:

ISSUE

Have Appellants shown that the Examiner erred in finding that the disclosure of Holt teaches or suggests the limitations of representative claim 1 under § 103? The issue turns on whether Holt's object-oriented program architecture teaches or suggests coding and storing at least one data set describing the color impression of at least one color sample into a pure text format as claimed.

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence:

1. Holt discloses an object-oriented software architecture that supports color processing among a number of different peripheral color devices and different color matching schemes (Holt, Abstract, col. 2, l. 65 - col. 3, l. 36).

2. Specifically, Holt's system includes a processor 12 that interfaces a variety of different peripheral color devices 14 (e.g., monitors, scanners, printers, etc.) which can provide and receive color information (Holt, col. 4, l. 62–col. 5, l. 12; Fig. 1).

3. Each peripheral device operates in a given "color space" and can have its own "color gamut" and "color profile" (Holt, col. 5, ll. 22-24).[5]

4. Figures 2 and 3 show two graphs 46 and 48 that represent color data stored in processor 12 for each of the devices 14 to enable the system to carry out color processing (Holt, col. 5, ll. 41-45; Figs. 2 and 3).

5. In Figure 2, graph 46 represents a color space CS for monitors 16 and 18 and their respective color gamuts CG16 and CG18 (Holt, col. 5, ll. 23-31; Fig. 2).

6. Figure 3 shows a graph 48 with different color profiles or tonal reproduction curves (TRCs) TRC16 and TRC18 for the color red for monitors 16 and 18. These curves represent a measure of how non-ideal each monitor is in reproducing the color red within their respective color gamuts (Holt, col. 5, ll. 34-40; Fig. 3).

7. Holt's color architecture may be written in any of a variety of object-oriented programming languages, including C++. Using object-oriented principles, data are abstracted and encapsulated. Thus, objects that represent color, or objects that contain color, can be represented in many different forms with varying types of data format without changing the overall architecture (Holt, col. 6, ll. 15-27).

---

[5] Holt defines the terms "color space," "color gamut," and "color profile" as follows:
(1) "Color space is three-dimensional space in which each point in the space corresponds to a color" (Holt, col. 1, ll. 40-42).
(2) "A color gamut is the range of colors producible within the color space with a set of colorant phosphors, inks or other colorants of the given device" (Holt, col. 1, ll. 56-59).
(3) A color profile "is a measure of how non-ideal the particular device is in actually producing a color called for within its gamut" (Holt, col. 2, ll. 1-3).

8. A class[6] diagram of Holt's object-oriented color architecture is shown in Figure 5 that depicts the interrelationship of a variety of different classes with various functions (Holt, col. 5, l. 66–col. 6, l. 11). Figure 5 is reproduced below:

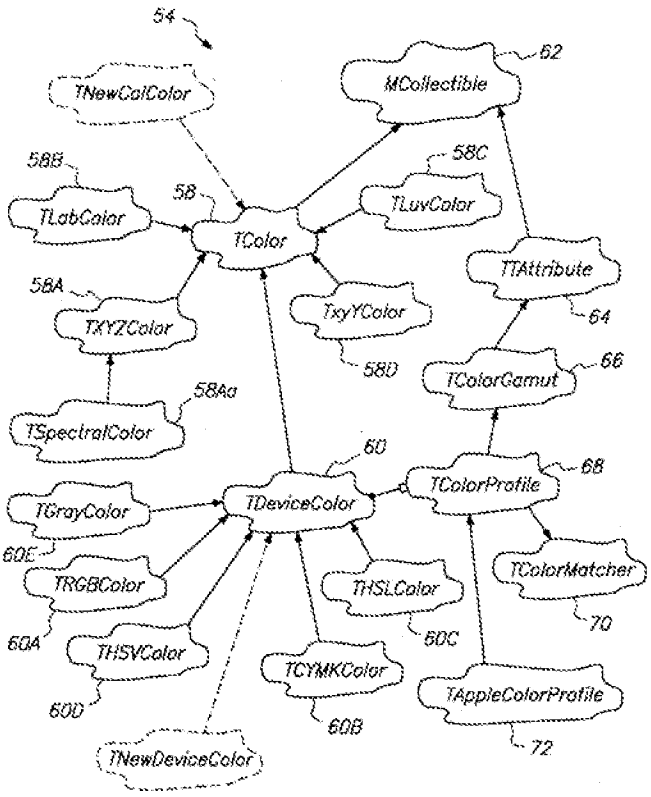

Figure 5 of Holt Illustrating Class Diagram

9. Class "TColorProfile" 68 stores color profile data for each peripheral device 14 including TRCs for each device. A color profile for a given peripheral device can include seven TRCs for each of seven colors, respectively (Holt, col. 3, ll. 47-49; col. 10, ll. 31-64).

[6] Holt notes that "[a] class or object in object-oriented design encapsulates structure (i.e., data) and behavior (i.e., method functions) which operate on the structure" (Holt, col. 6, ll. 11-14).

10. Class "TColorGamut" 66 stores color gamut information of each peripheral device. Unique color gamut data can be added to this class via a template (Holt, col. 3, ll. 45-47; col. 9, l. 12–col. 10, l. 29).

11. Header files (".h files") associated with the classes used in Holt's color architecture are listed in Appendix A of the reference. The files "ColorGamut.h" and "ColorProfile.h" are associated with classes TColorGamut and TColorProfile, respectively (Holt, col. 9, ll. 27-34; Appendix A (cols. 27-28, ll. 14-17 (Items 5 and 6); cols. 53-56 (listing for "ColorGamut.h" file); cols. 57-66 (listing for "ColorProfile.h" file)).

12. Figure 8 illustrates an application of Holt's architecture to match individual colors among different peripherals, namely a scanner 22 and a printer 36. In that application, the scanner's TRCs and printer's inverse TRCs (TRC22 and TRC36) are stored as data structures in class TColorProfile. Likewise, both the scanner's and printer's color gamuts are stored as a data structure in class TColorGamut. Both of these classes are utilized in the color matching process (Holt, col. 22, l. 31–col. 23, l. 8; Fig. 8).

13. The Specification of the present application notes that a color can be defined in a device dependent color space. The Specification further notes that if the user defines the color in device dependent form, the color will often be associated with a device profile. (Spec. 9:3-11).

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so

doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Discussing the question of obviousness of claimed subject matter involving a combination of known elements, *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007), explains that if the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that "there was an apparent reason to combine the known elements in the fashion claimed." *Id.* at 1740-41. Such a showing requires

> some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

If the Examiner's burden is met, the burden then shifts to the Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

ANALYSIS

We begin our analysis by noting that the dispute before us essentially turns on whether the "data set" identified by the Examiner teaches or

suggests the data set and its attributes recited in claim 1. As recited in that claim, the data set is ultimately coded and stored in a pure text format.

The Examiner takes the position that the recited "data set" corresponds, at least in part, to the color profiles or TRCs used in Holt's object-oriented architecture (Ans. 7).[7] Based on the record before us, we find no error with this position as the scope and breadth of the claim simply does not preclude the Examiner's interpretation. In fact, this interpretation is consistent with the Specification which envisions defining color in a device dependent form which can involve color spaces and associating the color with a device profile (FF 13).

As such, we find that the data associated with the classes TColorProfile and TColorGamut (FF 9, 10, 12) reasonably constitutes a "data set" as claimed as it at least fundamentally describes a color impression of at least one color sample. We reach this conclusion noting the key role that the color profile and color gamut data performs in rendering and matching particular colors (FF 3-6, 9-12).

We acknowledge that these data sets in Holt are associated with particular peripherals and are distinguished from the raw color data on which Holt's architecture operates, as Appellants indicate (App. Br. 9).[8] Nevertheless, the scope of the claim language does not preclude these data sets associated with the color profile and color gamut in Holt's object-

[7] According to the Examiner, "Holt teaches with respect to a *data set* of color profiles or tonal reproduction curves describing…a red color sample of a particular peripheral device…." (Ans. 7; emphasis added).
[8] *See, e.g.,* Figure 8 of Holt (inputting "raw device data" from scanner 22 into TRC22 to produce "corrected device data").

oriented color architecture. At a minimum, these data sets would describe a color impression of at least one color sample for a particular peripheral.

We also find that these data sets are (1) coded into a pure text format, and (2) stored in an electronic color information file in a pure text format as claimed. As Holt indicates, TRCs and color gamuts are stored as data structures within their respective classes (i.e., TColorProfile and TColorGamut) (FF 12). While Holt's color architecture is written in an object-oriented programming language (e.g., C++) (FF 7), the classes used in that architecture are associated with header files that are listed in Appendix A of the reference (FF 11). As shown in Appendix A, these header files are listed textually. *See id.*

Although these color information files ultimately would be executed by a computer or processor, the files nonetheless exist in pure textual format even in the form of computer code. Thus, even assuming that these files constitute source code that is compiled into machine-readable format during execution, the code—along with its associated object classes and data structures—would nevertheless exist in a pure text format prior to compiling. Indeed, Appellants acknowledge the textual representation of source code prior to compiling (Reply Br. 5).[9]

To the extent Appellants' position is predicated on such a text format for source code as not being in a "*pure* text format" (as opposed to a "text format"), we find such a distinction unavailing. In any event, nothing in

[9] *See* Reply Br. 5 (noting that "source code is readable by humans"); *see also id.* ("As is well known to persons skilled in the art, *a program's source code is in a text format - which a human can read and understand* - but is then compiled by a compiler into a machine-readable format, i.e., a non-text format.") (emphasis added).

claim 1 precludes Holt's object-oriented program listing with its associated classes and data structures noted above as being coded and stored in a pure text format as claimed.

Therefore, for these reasons, we find that Holt actually anticipates claim 1. Nevertheless, we find no reversible error in the Examiner's obviousness rejection based on Holt as obviousness rejections can be based on references that happen to anticipate the claimed subject matter. *See In re Meyer*, 599 F.2d 1026, 1031 (CCPA 1979).

As such, Appellants' contentions that (1) Holt constitutes non-analogous art (App. Br. 4-7); (2) Holt teaches away from coding and storing a data set in a pure text format (App. Br. 12); and (3) that such a modification would render Holt unsatisfactory for its intended purpose (App. Br. 12) are inapposite to our findings regarding Holt. While we disagree with these arguments even if they were relevant to our decision, we emphasize that our decision is not based on any modification to Holt's processing of the raw color data, but rather based on the functionality of Holt's object-oriented architecture itself. This functionality, in our view, fully meets claim 1 in view of its scope and breadth. Appellants' arguments are therefore unavailing.[10]

---

[10] Furthermore, we need not address Appellants' arguments in the Reply Brief pertaining to the newly-cited Linux reference which is, at best, superfluous to the teachings of Holt. In any event, even if it were relevant, we would not consider that reference as the Examiner did not rely on it in the rejection. *See In re Hoch*, 428, F.2d 1341, 1342 n.3 (CCPA 1970) ("Where a reference is relied upon to support a rejection, whether or not in a 'minor capacity,' there would appear to be no excuse for not positively including the reference in the statement of the rejection.").

For the foregoing reasons, Appellants have not persuaded us of error in the Examiner's rejection of representative claim 1. Therefore, we will sustain the Examiner's rejection of that claim, and claims 2-38, 40, 41, 43, and 44 which fall with claim 1.

THE OBVIOUSNESS REJECTION OVER HOLT AND BACK

Likewise, we will sustain the Examiner's obviousness rejection of claims 39 and 42 over Holt and Back. We find that Appellants have not particularly pointed out errors in the Examiner's reasoning to persuasively rebut the Examiner's prima facie case of obviousness, but merely indicate that claims 39 and 42 are allowable for the reasons noted with respect to independent claims 1 and 21 (App. Br. 13). Thus, we are not persuaded that the Examiner erred in rejecting claims 39 and 42 for the same reasons discussed above with respect to claim 1. The rejection is therefore sustained.

CONCLUSIONS OF LAW

Appellants have not shown that the Examiner erred in rejecting claims 1-6, 8-26, 28-38, 40, 41, 43, and 44 over the disclosure to Holt under § 103. Nor have Appellants shown that the Examiner erred in rejecting claims 39 and 42 over the collective teachings of Holt and Back under § 103.

ORDER

The Examiner's decision rejecting claims 1-6, 8-26, and 28-44 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

Eld

MCCARTER & ENGLISH, LLP STAMFORD OFFICE
FINANCIAL CENTRE, SUITE 304A
695 EAST MAIN STREET
STAMFORD, CT 06901-2138